

ABSTRACT OF THE DISCLOSURE

The magnetic bearing control device (1) has a motor drive circuit (13) provided with an inverter (13a) for driving the motor (4) capable of generating an electric power, the inverter being controlled by an inverter control circuit (14), and an over-speed detection circuit (17) for detecting the number of revolutions of the rotor (3) that is being rotated by the motor (4), the rotor being supported in non-contact manner by a magnetic bearing (5). When the over-speed detection circuit (17) detects that the rotor (3) is being rotated at a preset number of revolutions or more, the motor drive circuit (13) performs a switching operation of a switch portion 13c provided in the motor drive circuit (13) to separate the inverter (13a) from the motor (4) and connect the motor (4) to a regenerative circuit (13b), whereby the magnetic bearing (5) is driven and controlled, employing a regenerative electric power of the motor (4).